APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/826,742	04/05/2001	Anthony Mauro	010001	6064

			EXAMINER
23696	7590	06/03/2005	FIELDS, COURTNEY D

Qualcomm Incorporated
Patents Department
5775 Morehouse Drive
San Diego, CA 92121-1714

ART UNIT	PAPER NUMBER
2137	

DATE MAILED: 06/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/826,742	MAURO, ANTHONY
	Examiner	Art Unit	
	Courtney D. Fields	2137	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _15 March 2005_.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-26_ is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-26_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a)☐ All   b)☐ Some * c)☐ None of:

         1.☐ Certified copies of the priority documents have been received.

         2.☐ Certified copies of the priority documents have been received in Application No. _____.

         3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
     Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
     Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

1.   Claims 1-26 are pending.

Response to Arguments

1.   Applicant's arguments filed 15 March 2005 have been fully considered but they
are not persuasive.

2.   Referring to the rejections of claims 1 and 20, the Applicant contends and argues
that the prior art Osborn does not teach nor disclose a secure processor coupled to the
main processor or a secure storage physically encapsulated within a secure unit. The
Examiner respectfully disagrees and asserts that Osborn discloses a secure processor
and a private key embedded within a secure unit operatively coupled to a processor as
shown in Figure 12. The secure unit serves as a secure data storage for secure
processing for a cellular telephone.

3.   Referring to the rejections of claims 1 and 20, the Applicant contends and argues
that the prior art Osborn does not teach nor disclose preventing unauthorized access to
securely stored data via hard coded protocols. The Examiner respectfully disagrees and
asserts that Osborn discloses preventing access to authorized data such as a modified
program in flash memory or a modified ESN in EEPROM by generating a non maskable
interrupt (NMI). NMI is a hardware oriented interrupt used to prevent cloning of shadow
memory from being substituted for valid flash memory following the initiation of normal
operation as shown in Figures 4 and 5, and Column 8, lines 19-64.

4.   Therefore, the rejections of claims 1-26 are maintained in view of the reasons
above and in view of the reasons below.

Claim Rejections - 35 USC § 102

1.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2.   Claims 1-11 and 20-23 are rejected under 35 U.S.C. 102(e) as being anticipated

by Osborn (U.S. Patent No. 6, 026, 293). Referring to the rejection of claims 1 and 20,

Osborn discloses a remote terminal in a wireless communication system comprising a

data processing unit configured to process data for a communication over a wireless

link, a main processor coupled to the data processing unit and configured to provide

control for the remote terminal, wherein the data processing unit and main processor

are unsecured units vulnerable to being spoofed by external entities, a secure

processor configured to perform secure processing for the remote terminal, and a

secure memory configured to provide secure storage of data wherein the secure unit is

physically encapsulated within a secure module and further configured to prevent

unauthorized access to the secure memory via hard coded protocols in Column 7, lines

60-67, Column 8, lines 1-62.

As per claim 2, Osborn discloses the claimed limitation wherein a read only memory

(ROM) configured to store program instructions and parameters used for the secure

processing in Column 8, lines 21-28, Column 15, lines 20-24.

As per claim 3, Osborn discloses the claimed limitation wherein the ROM is embedded within the secure processor in Column 7, lines 65-67, Column 8, lines 1-10.

As per claims 4 and 22, Osborn discloses the claimed limitation wherein the secure processor and secure memory are implemented and physically encapsulated within a single integrated circuit (IC) in Column 9, lines 30-62.

As per claim 5, Osborn discloses the claimed limitation wherein the secure processor and secure memory are physically encapsulated within a tamper resistance or tamper evident unit in Column 6, lines 31-45 and Column 8, lines 21-62.

As per claims 6 and 23, Osborn discloses the claimed limitation wherein the secure processor and secure memory are permanently affixed within the remote terminal in Column 9, lines 63-67, Column 10, lines 1-7.

As per claim 7, Osborn discloses the claimed limitation wherein messaging and data are exchanged with the secure unit via a single entry point provided by a bus in Column 9, lines 36-46.

As per claim 8, Osborn discloses the claimed limitation wherein the secure unit is configured to implement public-key cryptography for the secure processing in Column 12, lines 14-22.

As per claims 9 and 10, Osborn discloses the claimed limitation wherein a private key assigned to the remote terminal is embedded within the secure processor in Column 10, lines 14-23.

As per claim 11, Osborn discloses the claimed limitation wherein a private key assigned

to the remote terminal is stored in a ROM within the secure processor in Column 11,

lines 43-50, Column 12, lines 5-22.

As per claim 21, Osborn discloses a method for providing secure processing and data

storage for a wireless communication device comprising defining a secure processor

within the communication device for performing secure processing, defining a secure

storage within the communication device for performing secure processing, defining a

secure storage within the communication device for providing secure data storage,

storing program instructions and parameters used for the secure processing within the

secure processor or secure storage, wherein the stored program instructions implement

hard coded protocols, and physically encapsulating the secure processor and secure

storage within a secure unit in Column 3, lines 61-67, Column 4, lines 1-8, Column 8,

lines 19-62, Column 9, lines 30-62.

Claim Rejections - 35 USC § 103

3.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

4.   Claims 12-19, 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Osborn in view of Rowney et al. (U.S. Patent No.5, 987,140). Osborn discloses

elements of claim 1, as outlined above. However, Osborn does not explicitly disclose

securing a wireless communication system using different levels of security. As per

claim 12, Rowney et al. discloses the claimed limitation wherein the secure processor is

configurable to implement one or more security protocols in Column 10, lines 4-8, 14-

19, 25-28, 51-58.

As per claim 13, Rowney et al. discloses the claimed limitation wherein the one or more

security protocols include Secure Sockets Layer (SSL) protocol or Transport Layer

Security (TLS) protocol or both in Column 10, lines 6-8, 20-24, and Figures 1 and 2.

As per claim 14, Rowney et al. discloses the claimed limitation wherein the secure unit

is configurable to act in a role of a client or a server for each secure transaction with a

foreign entity in Column 10, lines 25-67, Column 11, lines 1-48.

As per claim 15, Rowney et al. discloses the claimed limitation wherein the secure

memory is configured to store electronic funds in Column 11, lines 49-67, Column 12,

lines 1-11.

As per claim 16, Rowney et al. discloses the claimed limitation wherein the secure

memory is configured to store cryptographic parameters used for the secure processing

in Column 10, lines 31-67, Column 11, lines 1-13.

As per claims 17 and 26, Rowney et al. discloses the claimed limitation wherein the

secure memory is configured to store one or more certificates used for authentication in

Column 12, lines 41-67, Column 13, lines 1-67, Column 14, lines 1-13.

As per claim 18, Rowney et al. discloses the claimed limitation wherein a certificate is

loaded into the secure memory via a secure transaction with a certificate authority in

Column 15, lines 56-67, Column 16, lines 1-22.

As per claim 19, Rowney et al. discloses the claimed limitation wherein different levels of security is implemented for a certificate loading transaction depending on whether or not a certificate has already been loaded to the remote terminal in Column 18, lines 20-33, 53-67.

As per claim 24, Rowney et al. discloses a method for providing secure processing and data storage for a wireless communication device comprising receiving a first message to initiate a secure transaction with a foreign entity, authenticating the foreign entity through a secure processor located within the communication device, if the foreign entity is authenticated, performing securing processing for the secure transaction through the secure processor, and wherein the secure unit is physically encapsulated within a secure module and further configured to prevent unauthorized access to the secure memory via hard coded protocols in Column 10, lines 31-67, Column 11, lines 1-44

As per claim 25, Rowney et al. discloses the claimed limitation wherein the secure processing is performed based on program instructions stored within the secure processor in Column 4, lines 2-4. Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to modify Osborn's electronic memory tampering system by combining Rowney et al's secure data transmission for communication over the Internet. Motivation for such an implementation would enable the user to communicate and process data transactions over a secure channel using SSL and SET protocols. (See Rowney et al., Column 2, lines 46-56)

Conclusion

5.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Courtney D. Fields whose telephone number is 571-

272-3871. The examiner can normally be reached on Mon - Thurs. 6:00 - 4:00 pm; off

every Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Caldwell can be reached on 571-272-3868. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the
Patent Application Information Retrieval (PAIR) system. Status information for
published applications may be obtained from either Private PAIR or Public PAIR.
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For more information about the PAIR system, see http://pair-direct.uspto.gov. Should
you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

cdf
May 31, 2005

MATTHEW SMITHERS
PRIMARY EXAMINER
Art Unit 2137